-2-

Ser. No. 10/047,999 Response to Office Action of 5/5/05

Atty Docket 117163-37

AMENDMENTS TO THE CLAIMS

Please amend the claims as they currently stand so that they are in accord with the

following listing of the claims:

Claim 1 (previously presented): A stimulation arrangement, comprising:

a stimulation unit to deliver electrical stimulation pulses for stimulating body tissue; and

an evaluation unit to receive at least one electrical signal in conjunction with the delivery

of a stimulation pulse and to evaluate said received electrical signal for checking stimulation

success, and wherein the evaluation unit detects signal features in the received electrical signal

that characterize a case of lack of stimulation success, and delivers a corresponding output

signal.

Claim 2 (previously presented): The stimulation arrangement of claim 1, wherein the evaluation

unit associates the received electrical signal with a stimulation pulse in respect of time and

detects a feature of a polarization artifact as a signal feature in the received electrical signal.

Claim 3 (previously presented): The stimulation arrangement of claim 2, wherein the evaluation

unit evaluates the received electrical signal measured after the expiry of a blanking period after

the delivery of a stimulation pulse to determine a first integral (INGR1) of the measured signal

over a first time interval in which the measured signal extends above a blanking level measured

during the blanking period.

Claim 4 (previously presented): The stimulation arrangement of claim 3, wherein the evaluation

unit determines a second integral (INGR2) of the measured signal over a second time interval

beginning with an end of said first time interval and extending to an end of a predetermined time

window whose beginning is an end of the blanking period.

Claim 5 (previously presented): The stimulation arrangement of claim 3, wherein the received

electrical signal received after the delivery of said stimulation pulse is received in a form of time-

discrete sample values, and wherein the evaluation unit further comprises a counter that

Ser. No. 10/047,999

Response to Office Action of 5/5/05

Atty Docket 117163-37

determines a number (CNT1) of said sample values of the received electrical signal, which fall

- 3 -

into the first time interval over which the first integral is formed.

Claim 6 (previously presented): The stimulation arrangement of claim 4, wherein the evaluation

unit forms an indicator flag (CROSS) having a binary value that depends on whether the

measured signal during the second time interval crosses the measured blanking level.

Claim 7 (cancelled)

Claim 8 (previously presented): The stimulation arrangement of claim 6, wherein

the evaluation unit continuously compares said sample values of said received electrical signal to

a limit value (zn) for negative signal amplitude and delivers a signal that characterizes a

stimulation success in the case of the limit value (zn) being negatively exceeded by at least one

of said sample values.

Claims 9-13 (cancelled)

Claim 14 (previously presented): The stimulation arrangement of claim 1, wherein

the evaluation unit continuously compares sample values of said received electrical signal to a

limit value (zn) for negative signal amplitude and delivers a signal which characterizes a

stimulation success in the case of the limit value (zn) being negatively exceeded by at least one

of said sample values.

Claim 15 (previously presented): The stimulation arrangement of claim 2, wherein

the evaluation unit continuously compares sample values of said received electrical signal to a

limit value (zn) for negative signal amplitude and delivers a signal which characterizes a

stimulation success in the case of the limit value (zn) being negatively exceeded by at least one

of said sample values.

Claim 16 (previously presented): The stimulation arrangement of claim 3, wherein

-4-

Ser. No. 10/047,999

Response to Office Action of 5/5/05

Atty Docket 117163-37

the evaluation unit continuously compares sample values of said received electrical signal to a

limit value (zn) for negative signal amplitude and delivers a signal which characterizes a

stimulation success in the case of the limit value (zn) being negatively exceeded by at least one

of said sample values.

Claim 17 (previously presented): The stimulation arrangement of claim 4, wherein

the evaluation unit continuously compares sample values of said received electrical signal to a

limit value (zn) for negative signal amplitude and delivers a signal which characterizes a

stimulation success in the case of the limit value (zn) being negatively exceeded by at least one

of said sample values.

Claim 18 (previously presented): The stimulation arrangement of claim 5, wherein

the evaluation unit continuously compares said sample values of said received electrical signal to

a limit value (zn) for negative signal amplitude and delivers a signal which characterizes a

stimulation success in the case of the limit value (zn) being negatively exceeded by at least one

of said sample values.

Claims 19-25 (cancelled)

Claim 26 (previously presented): The stimulation arrangement of claim 6 wherein an area

value (AREA) is calculated as a sum of said INGR1 and said INGR2 if said CNT1 is greater than

a predetermined sample number limit value (w1), and wherein said area value (AREA) is

calculated as said INGR2 if said CNT1 is less than or equal to said w1.

Claim 27 (previously presented): The stimulation arrangement of claim 26 wherein said

evaluation unit delivers a signal that characterizes a lack of stimulation success if said AREA is

determined to be less than a first predetermined area limit value (a1).

Claim 28 (previously presented): The stimulation arrangement of claim 27 wherein said

evaluation unit delivers a signal that characterizes a lack of stimulation success if said CNT1 is

Ser. No. 10/047,999

Response to Office Action of 5/5/05

Atty Docket 117163-37

greater than said w1 and if a maximum positive sample value (MAX POS) of said measured

signal, measured at least x samples after said blanking period, is less than a predetermined

amplitude limit value (zp), and where x is a predetermined number of samples.

Claim 29 (previously presented): The stimulation arrangement of claim 28 wherein said

evaluation unit delivers a signal that characterizes a stimulation success if said CNT1 is greater

than said w1 and if said maximum positive sample value (MAX POS) of said measured signal,

measured at least x samples after said blanking period, is greater than or equal to said

predetermined amplitude limit value (zp).

Claim 30 (previously presented): The stimulation arrangement of claim 29 wherein said

evaluation unit delivers a signal that characterizes a stimulation success if said AREA is greater

than a second predetermined area limit value (a2).

Claim 31 (previously presented): The stimulation arrangement of claim 30 wherein said

evaluation unit delivers a signal that characterizes a stimulation success if said CROSS is equal

to a binary value indicating that said measured signal has crossed said measured blanking level

during said second time interval.

Claim 32 (previously presented): The stimulation arrangement of claim 31 wherein said

evaluation unit delivers a signal that characterizes a lack of stimulation success.

- 5 -